

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A durable chip pad comprising:
a terminal metal layer disposed on a passivating layer;
a diffusion barrier layer on said terminal ~~metallurgy~~ metal layer;
a conducting layer on said diffusion barrier;
a plated hard test barrier layer on said conducting ~~barrier~~ layer; and
a plate passivating layer on said hard test barrier layer.
2. (original) A durable chip pad as in claim 1, wherein said diffusion barrier layer includes an adhesion layer on barrier metallurgy.
3. (original) A durable chip pad as in claim 2, wherein said barrier metallurgy is selected from a group of metals and metal alloys comprising titanium (Ti), titanium nitride (TiN), titanium tungsten (TiW), chromium (Cr) and tantalum/tantalum nitride (Ta/TaN).
4. (original) A durable chip pad as in claim 3, wherein said adhesion layer is selected from a group of metals and metal alloys comprising chrome-copper (CrCu), nickel vanadium (NiV) and titanium (Ti).
5. (currently amended) A durable chip pad as in claim 1, wherein said plated hard test barrier layer comprises a nickel (Ni) plated layer.

6. (cancelled)
7. (original) A durable chip pad as in claim 1, wherein said plate passivating layer is selected from a group of metals comprising copper (Cu), ruthenium (Ru), rhodium (Rh) and gold (Au).
8. (currently amended) An integrated circuit (IC) chip with circuits formed thereon, a plurality of chip interconnect pads formed on a surface of said IC chip, one or more of said plurality of chip interconnect pads being a durable chip pad comprising:
- a terminal metal layer disposed on a chip passivating layer and connecting to underlying chip wiring through a via through said chip passivating layer;
 - an adhesion/barrier layer on said terminal metal ~~metallurgy~~ layer;
 - a seed layer on said adhesion/barrier layer;
 - a hard test barrier layer plated on said ~~diffusion-barrier~~ seed layer; and
 - a plate passivating layer on said hard test barrier layer.
9. (currently amended) An IC as in claim 8, wherein said ~~adhesion/diffusion-barrier~~ adhesion/barrier layer includes an adhesion layer on barrier metallurgy and said barrier metallurgy is selected from a group of metals and metal alloys comprising titanium (Ti), titanium nitride (TiN), titanium tungsten (TiW), chromium (Cr) and tantalum/tantalum nitride (Ta/TaN).
10. (original) An IC as in claim 9, wherein said adhesion layer is selected from a group of metals and metal alloys comprising chrome-copper (CrCu), nickel vanadium (NiV) and titanium (Ti).

11. (original) An IC as in claim 10, wherein said seed layer comprises a copper layer.

12. (currently amended) An IC as in claim 11, wherein said hard test barrier layer comprises a nickel (Ni) layer plated to said copper layer.

13. (original) An IC as in claim 12, wherein said plate passivating layer is selected from a group of metals comprising copper (Cu), ruthenium (Ru), rhodium (Rh) and gold (Au).

14. (original) An IC as in claim 13, wherein said IC is one of a plurality of identical ICs on a wafer, each of said plurality of identical ICs located in a die on said wafer.

15 – 20 (cancelled)

21. (new) A durable chip pad comprising:
a terminal metal layer disposed on a passivating layer;
a diffusion barrier layer on said terminal metal layer;
a conducting layer on said diffusion barrier;
a copper seed layer on said conducting layer;
a nickel layer plated to said copper seed layer; and
a plate passivating layer on said nickel layer.

22. (new) A durable chip pad as in claim 21, wherein said diffusion barrier layer includes an adhesion layer on barrier metallurgy.

23. (new) A durable chip pad as in claim 22, wherein said barrier metallurgy is selected from a group of metals and metal alloys comprising titanium (Ti), titanium

nitride (TiN), titanium tungsten (TiW), chromium (Cr) and tantalum/tantalum nitride (Ta/TaN).

24. (new) A durable chip pad as in claim 23, wherein said adhesion layer is selected from a group of metals and metal alloys comprising chrome-copper (CrCu), nickel vanadium (NiV) and titanium (Ti).

25. (new) A durable chip pad as in claim 21, wherein said plate passivating layer is selected from a group of metals comprising copper (Cu), ruthenium (Ru), rhodium (Rh) and gold (Au).